A SURVEY OF PHYSICAL EDUCATION AND RECREATION PROGRAMS AND FACILITIES OF NEUROPSYCHIATRIC HOSPITALS IN NEW ENGLAND

ORLINDO F. BORGHESANI

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Submitted by

Orlindo F. Borghesani

(B.S. in Ed., Boston University, 1941)

In partial fulfillment of requirements for the

degree of Master of Education

1948

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The writer wishes to thank Dr. G. Lawrence Rarick, Boston University, School of Education, for his unfailing help and encouragement, and also all the Superintendents and Managers of the twenty-three cooperating hospitals for their assistance.

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CHAPTER I

INTRODUCTION

Statistics of the Selective Service physical examinations for World War II have revealed that of the approximate four million men rejected for military duty about one third were rejected because of some nervous or mental condition.[1]

This emphasizes the fact that while many diseases are on the decrease, mental diseases are increasing. The advancement of civilization has made every-day living more complex, causing social adjustment to become increasingly difficult.

For many men and women military duty was an unfortunate occurance. The emotional and mental strain of strict discipline, restriction, and nervous tension caused thousands of men and women to need psychiatric treatment. The report of Farrell and Appel[2] bears this out. Their study reveals:

> A leading cause for casualties returning from overseas has been neuropsychiatric. Almost as many of the medical discharges from the Army have been for neuropsychiatric reasons as for all other causes combined and this does not include the psychopaths and mental defectives who are discharged under a medical category.

1/Hoyman, Howard S. Health Guide Units for Oregon Teachers, E.C. Brown Trust, Washington, 1946, p. 429.

2/Farrell, Malcolm and Appel, John W. "Current Trends in Military Neuropsychiatry", American Journal of Psychiatry, 101: 12-20, July, 1944.

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These discharges, at a time when manpower was at a premium, rose to such proportions that it became apparent that certain measures needed to be taken to salvage and return to duty as many men from this group as possible. Thus began the extensive Army program of reconditioning neuropsychiatric casualties. As a result, (1) there was a noticeable drop in discharges from the service, (2) there are fewer men remaining in hospitals for further treatment, and (3) there are more men being returned for duty.

> World War II has given an impetus to Physical Education and allied activities as adjuncts to treatment for the neuropsychiatric casualty. The success of the extensive physical rehabilitation program carried on by both Army and Navy should be proof enough of the need and justification of such a program.[1]

Now is the time for a concentrated, inspired effort to firmly establish a broad program of physical education, recreation and allied activities in the various neuropsychiatric hospitals. This will require a coordinated, impelling force by those who are directly concerned.

PURPOSE

The purpose of this study is to determine the status of physical education and recreation programs in terms of, (1) the activity program, (2) existing facilities, (3) administrative control, and (4) future plans for physical education and recreation programs. Any recommendations for improvement of, or addition to, any one of the items observed will be set forth on the basis of existing practices in any of the hospitals visited.

SCOPE

This study was carried on by means of interviews and observations in twenty-three of the twenty-four neuropsychiatric hospitals in the New England

1/Barton, Walter E. "Reconditioning of Neuropsychiatric Patients", Bulletin Menninger Clinic, Topeka, Kansas, 8: 138-140.

area. Included in the study were nineteen State and Four Federal institutions. All hospitals selected met the desired criterion in that they were State or Federally controlled and are known as neuropsychiatric hospitals. This does not mean that cases such as the mental deficient, epileptic, chronic alcoholic, and disabled veterans are not in these institutions. It does mean, however, that only the program for the neuropsychiatric patient was included in this investigation.

As far as the writer was able to ascertain only twenty-four hospitals of this type existed in the New England area. He was able to enter only twenty-three of the twenty-four hospitals due to conditions beyond his control.

POSSIBLE VALUES OF THE STUDY

The possible values of this study are limited to a very specialized field. It may be of service to, (1) the hospital superintendents, managers, physical educators, recreation directors, and other personnel by setting forth the contents of various programs of physical education and recreation observed while visiting these particular neuropsychiatric hospitals. (2) the gathering of this material should assist in acquiring new ideas in choice of activities, in breadth of a possible program, and in initiating the program, and (3) this survey may, through the statements of future plans, be of some motivating assistance to higher schools of learning in preparing physical educators and recreation directors to develop a program of specialized activity to meet the distinctive needs of patients with various mental diseases.

REVIEW OF LITERATURE

A survey of current literature revealed what had been written about the requirements, standards, and procedures for physical education and recreation programs in neuropsychiatric hospitals. Very little information concerning this aspect of physical education and recreation was found. There have been numerous publications, but few would be of any assistance in the development of facilities and programs according to set standards.

The majority of the publications indicate significant trends toward the use of physical education and recreation as therapeutic agents in the rehabilitation of neuropsychiatrics.

Davis,[1] has reviewed many years work with the psychological concept of physical education and recreation. Mr. Davis contends that recreation is of great psychological aid to the adjustment of the mentally ill. In recreational therapy the method should be toward interests and particular treatment for the individual patient. A morose patient may respond to sad music more than to lively music. When working with this type patient use of language suitable to him and to what he understands will aid greatly. Proper use of physical education and recreation can help an individual to endure the marked environmental changes met in an institution.

Campbell and Davis[2] have published a leading study on the development, results, and failures of an elaborate program in physical education with psychotic patients. The study reveals the many everlasting pitfalls confronting the success of the program. This program of highly diversified activit-

1/Davis, John E. Principles and Practices of Recreation Therapy, Rev. Ed. New York, A. S. Barnes & Co., 1946, p. 246.

2/Campbell, Duncan D., and Davis John E. "Report of Research and Experimentation in Exercise and Recreational Therapy" American Journal of Psychiatry 96: 915-933: Jan. 1940.

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2/Campbell, Duncan D., and Davis John E. "Report of Research and Experimentation in Exercise and Recreational Therapy" American Journal of Psychiatry 95: 819-833: Jan. 1940.

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Barton[1] explains the outgrowth of the Army and Navy rehabilitation programs of World War II, which were established due to necessity for retaining experienced men in the service. The conservation of manpower was the primary objective of the rehabilitation program. It achieved this objective by returning to duty, men who would otherwise be discharged or hospitalized for an indefinite period for psychiatric treatment.

This study was made at the Mental Hygiene Unit of the New England General Hospital at Atlantic City, N.J., from January through June 1944. During that period a large number of patients, selected by the psychiatrist at the general hospital as having reasonable chances for recovery, were observed and treated. Of the total number of patients treated, 70.5 per cent were returned to duty, with specific recommendation for type of duty. A follow up was later made through a questionnaire sent to the Commanding Officer of the unit to which the patient had been assigned. The officer was invited to state the particular assignment, whether or not this followed the recommendation of the Mental Hygiene Unit, the adjustment made to this assignment, and to evaluate the physical and mental condition of the former patient. The compiling of these reports indicated that 80 per cent of these men were performing their duties satisfacorily and 70 per cent had been

1/Ibid, p. 2.

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assigned to the duty recommended by the Mental Hygiene Unit. This result showed the desirability of continuing in this vein and expanding the program.

The reconditioning phase was considered as treatment and was to be guided by a counseling service which located the interests of the patient. Active participation whenever possible was stressed. This rehabilitation became quite effective in the handling of men who needed new interests and participation in recreational activities.

Brush,[1] Cavanaugh,[2] Horne and Philleo,[3] Katze,[4] Kennedy,[5] Meyer,[6] Overholzer,[7] and Schulack,[8] exemplify the trends of thought in the applicat-

1/Brush, Frederick L. Recreational Therapy in Convalescance and Allied Subnormal Health Conditions. Issued through the Sturgis Fund, White Plains, N.Y., 1920, p. 32.

2/Cavanaugh, Jean O. "Relation of Recreation to Personality Adjustment", Journal of Social Psychology, 15: 63-74; Feb. 1948.

3/Horne, Betty H., and Philleo, C.C. "Comparative Study of Spontaneous Play Activities of Normal and Mentally Defective Children". Journal of Genetic Psychology, 61: 33-46; Spetember, 1942.

4/Katz, Rosa, Play Analysis in Children, Zsxhr, f. Kinderpsychiat 8; 173-177; March, 1942.

5/Kennedy, Foster "War Neurosis as it is Related to Psychosomatic Medicine" New York State Journal of Medicine, 45: 2285-2290; Nov. 1945.

6/Meyer, Adolf "Spontanuity" Privately published booklet by Mental Hygiene Division of Illinois Congress of Public Welfare, Chicago, October, 1933.

7/Overholzer, Winfred, "Psychiatric Casualties of War and Their Treatment", New England Journal of Medicine, 231: 377-380; September, 1944.

8/Schulack, Norman R. "Occupational-Recreational Programs in Neuropsychiatric Sections of Army Station Hospitals", War Medicine, 5: 109-116; February, 1944.

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ion of physical education as treatment of the neuropsychiatric casualty, Psychoneurosis and psychosis as applied to military and civilian personnel.

Davis[1] indicates the distinct value of physical education and recreation as a therapeutic agent in the treatment of chronic alcoholics.

Smith,[2] Solomon,[3] and Telman[4] write on the use of physical education as a therapeutic agent in the treatment of neuropsychiatric patients. In the use of this agent, patient-worker relationship is a highly important psychological factor. While working with various patients the emphasis of one psychological factor may be desirable, but this same emphasis would be undesirable for another patient. Furthermore the emphasis may even have to be changed with the same patient within the same day.

DEFINITIONS OF TERMS USED

Physical Education.-- Physical education, as defined by Williams and Brownell,[5] is: "Physical Education is the sum of man's physical activities selected as to kind, and conducted as to outcomes".

1/Davis, John E., "Recreational Therapy for the Chronic Alcoholic" Psychiatric Quarterly, 19: 450-464, July, 1945.

2/Smith, Olive F., Rehabilitation Re-Education and Remedial Exercises, Baltimore, Williams and Wilkins Co., 1943, p. 424.

3/Solomon, Alfred P., "Rehabilitation: Opportunities for Psychotherapy in Physical Therapy" Occupational Therapy and Rehabilitation, 22: 286-293, December, 1943.

4/Telman, Harry: Kelly, John A., and Montovano, Lou, A Syllabus for the Physical Reconditioning Program at Mason General Hospital, Brentwood, Long Island, 1944, p. 33.

5/Williams, Jesse F., and Brownell, Clifford Lee. Administration of Health and Physical Education, Third E., Philadelphia, W.B. Saunders Co., 1946, p. 20.

Corrective Therapy.-- The program of corrective therapy as implied in this study embraces a broader view than that of Drew,[1] who calls it therapeutic gymnastics and defines it thusly:

> Therapeutic gymnastics comprises exercises based on anatomical and physiological principles, performed by the individual alone or with assistance, for the prevention or arrest, the cure, or correction of some definite functional or organic disability or deformity.

Its use as indicated in this study involves exercises and activities prescribed by physicians based upon the specific need and abilities for psychological or physical adjustment.

Recreation.-- The activities included under recreation were all those which were a mode of diversion and were administered by the recreation department, or recreation personnel. The activity may have been for active or passive participation.

Supervision.-- Supervision as used in this study pertains to the coordinating, stimulating, and directing the growth of the hospital technicians in their ability to stimulate and direct the growth of each patient at the hospital. The technician exercises the talents of the patient towards the richest and most intelligent participation in the environment in which he lives.

Facilities:-- In this study the term "Facilities" will pertain to; buildings, bowling alleys, swimming pools, ponds, tennis courts, basketball courts, baseball diamonds, etc., which are of a permanent nature.

Equipment and Supplies.-- As used in this paper, equipment and supplies will include such things as; uniforms, gymnasium apparatus, standards, pool tables, movie projectors, balls, bats, gloves, nets, card games, bicycles,

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[1] Drew, Lillian C. Individual Gymnastics, Philadelphia, Lea & Febiger, 1945, p. 11.

etc.

The following terms have been set more or less arbitrarily, according to the hospital possessing the most equipment and supplies as contrasted to the

Very Limited.-- The classification of "Very Limited" will include the possession of baseball or softball bats, balls and gloves, and other types of balls of insufficient quantity to properly serve the patients of the hospital, and also included will be the lack of gymnasium equipment or standards, and uniforms.

Limited.-- The term "Limited" as is used here will include a sufficient quantity of baseball ans softball gloves, bats, balls, other types of balls, roller skates, etc., to serve only a limited number of the patients.

The meaning of this term in referring to recreational equipment and supplies will include; thirty-five millimeter movie sound projectors, small games, band instruments, few pingpong tables, one pool table, etc., which will serve only a minimum of the patients.

Adequate.-- The possession of the following equipment and supplies is being termed as "Adequate"; uniforms, gymnasium equipment, and standards, ski outfits, complete sets of baseball as well as softball gloves, balls, and bats, which will serve more than a minimum of the patients.

To be classified as "Adequate" for recreation, there must be; (1) a thirty-five millimeter sound projector, (2) a sixteen millimeter sound projector, (3) several pingpong and pool tables, (4) four bowling alleys, (5) two-way bowling alleys, and (6) bicycles.

Eligible Patients.-- were those patients who had been cleared by the ward physician, before taking an active or passive part in any one of the three programs.

A Participant.-- was any one of the eligible patients who did take an active or passive part in one of the three programs.

CHAPTER II

PROCEDURE

The procedure for this survey involved two methods. The first consisted of an interview with each of the following:

1. Eight superintendents[1]
2. Three managers[2]
3. Three assistant superintendents
4. Two senior physicians
5. One junior assistant superintendent
6. One clinical director
7. One chief supervisor of attendants
8. One chief of occupational therapy
9. One chief of special services
10. One recreation director
11. One assistant chief of occupational therapy.

The second method required the observation of existing facilities and programs in physical education and recreation.

In order to make this study as objective as possible, a check list was used for guiding the interview. It assisted in seeking specific data concerning personnel, patients, physical education and recreation programs, facilities, equipment and supplies, and opinions. In the instances where the superintendent and managers were not interviewed the opinions expressed were not of the person interviewed but of the superintendent or manager of the hospital, as seen through his policies and conferences.

1/"Superintendent" is the title used by the State hospitals for the physician in charge.

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The instrument obtained information relative to:

Personnel

1. What is the number of persons on duty who perform their daily duties in physical education or recreation?
   a. Specific job requirements?
   b. Duties

2. Do they attend staff meetings, clinics, or conferences with the medical staff?

3. Are case histories available to the physical education and recreation personnel for individual guidance of the patients?

4. Does the hospital receive any assistance from outside volunteer groups?

5. Who supervises the program?

6. Future plans concerning personnel?

Patients

1. What is the average population of the hospital?

2. How many patients are eligable to participate in the programs of physical education and recreation?

3. How many patients participate in the activities?

4. Do patients have to receive medical clearance before any participation is possible? Is there a special form to be completed?

5. Do the patients themselves make any contribution to the programs?

6. Are patients allowed to take part in outside trips?

7. Are there any limitations to the length of stay at the particular hospital?

Program

1. Is there a program of activities in physical education and recreation?

2. What is included in the program of activities?
   a. Picnics
   b. Parties
   c. Contests

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Program

1. Is there a program of activities in physical education and recreation?

2. What is included in the program of activities?
   a. Clinics
   b. Parties
   c. Contests

d. Inter and intramurals
e. Trips

3. What are the methods used for motivating interests?

4. Is there a printed program?

5. Who arranged the schedule of activities?

6. Are there any definite time allotments?

7. What use is made of any volunteer groups in the program?

8. Does the program allow for differences in age, skill, physical condition, needs and interests?

9. Are there any future plans concerning the programs?

Facilities

1. What are the facilities for outdoor participation?

2. What are the facilities for indoor participation?

3. What are the facilities for off-station participation?

Equipment and Supplies

1. What equipment and supplies are available for use in the programs?

d. Inter and intramurals
e. Trips

3. What are the methods used for motivating interest?

4. Is there a printed program?

5. Who arranged the schedule of activities?

6. Are there any definite time allotments?

7. What use is made of any volunteer groups in the program?

8. Does the program allow for differences in age, skill, physical condition, needs and interest?

9. Are there any future plans concerning the program?

Facilities

1. What are the facilities for outdoor participation?

2. What are the facilities for indoor participation?

3. What are the facilities for off-station participation?

Equipment and Supplies

1. What equipment and supplies are available for use in the program?

CHAPTER III

ANALYSIS OF DATA

There was no effort made in this study to divide the neuropsychiatric hospitals into special classifications, as for example, considering those hospitals which admitted patients solely for observation and treatment for a limited period of time as distinct from other hospitals which had patients remaining for treatment over an indefinite period of time.

The findings in this study were treated as massed data and are shown on a percentage basis in tabular form.

The findings of this study should furnish pertinent data on the following questions:

1. How many of the twenty-three hospitals had programs and personnel programs in physical education, recreation, and corrective therapy?
2. What activities were used by the various hospitals in each of the programs.
3. What were certain related factors in the development of these programs.
4. What use was made of available outdoor facilities.
5. Did any of the hospitals take advantage of "off-station" facilities.
6. What use was made of existing indoor facilities.
7. What equipment and supplies were available.
8. How many patients were eligible to take part, and how many actually participated in any one of the three programs.

Table I shows the number of hospitals which had definite programs in physical education, recreation, and corrective therapy.

Thirteen of the twenty hospitals had a physical education program, all twenty-three had a program in recreation, and only four had a program in corrective therapy.

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TABLE I

General Type of Programs Observed in 23 Hospitals

Types of Programs	No. of Hospitals	Per Cent
Physical Education	13	56.5
Recreation	23	100
Corrective Therapy	4	17.4

Although it is not clearly shown in this table, it was found that four of the hospitals had all three programs functioning to serve the patient, while nine others had the combination of physical education and recreation programs in progress.

What is not shown in this table are the two hospitals that had special programs in physical education, recreation, and corrective therapy for two different type patients. One of the two hospitals was carrying on a special or separate program for the post-operative lobotomy cases. Each one of the three programs had a separate phase which offers special classes and gives attention only to these patients. The second hospital was doing special work in physical education with catatonic patients, employing children's games in an attempt to bring the patient out of his catatonic state.

Table I seems to indicate that the superintendents and managers are favorably inclined toward the use of a recreation program for diversified activity and therapeutic procedures. This is not the case, however, for in the expression of their opinions, as stated in the interview, regarding the use of physical education, recreation, and corrective therapy as adjuncts in treatment of neuropsychiatric patients, all agree to the relative important values attached to each of the three programs.

Table II indicates the broad aspects of the programs in physical education.

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TABLE II

Number and Percentage of Hospitals Having Physical Education and Athletic Programs

Activity	No. of Hospitals	Per Cent
Physical Education and Athletic Games	10	43.5
Athletics	3	13.0
None	10	43.5

There were 43.5 per cent of the hospitals which had a well-organized program of physical education and athletics, and 13 per cent had programs of athletics only. The remaining 43.5 per cent had no organized program. This does not mean that the institutions in the latter group have no athletics or physical educational activities, for there is a range of activities from holiday programs only, to a weekly variety of games, which needed only proper direction to become a well-organized program.

The following tables, III through VI, are concerned only with the thirteen hospitals which had an organized program of physical education.

TABLE III

Types of Team Games Conducted by Hospitals Supporting a Physical Education Program

Games	No. of Hospitals	Per cent
Basketball	9	69.2
Softball	8	61.5
Volleyball	8	61.5
Bowling	8	61.5
Tag Football	4	30.8
Baseball	4	30.8

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Baseball	4	30.8

Upon the inspection of Table III, the team games used by the hospitals having a physical education program can be seen. It is interesting to note that basketball was used in 69.2 per cent of the hospitals, the highest percentage of all spots. Softball and volleyball rank next, each being played at 61.5 per cent of the institutions, while baseball and tag football each were played in 30.8 per cent of the hospitals.

Table IV shows the individual games used in the physical education programs and the number of hospitals using them.

TABLE IV

Individual Sports Used in the Physical Education Programs of Thirteen Hospitals

Activity	No. of Hospitals	Per cent
Tennis	8	61.5
Table Tennis	7	53.8
Croquet	7	53.8
Suffleboard	7	53.8
Pocket Billiards	7	53.8
Billiards	5	38.4
Horseshoes	5	38.4
Ward Games	5	38.4
Badminton	5	38.4
Paddle Tennis	5	38.4
Goal Hi	4	30.8
Skiing	4	30.8
Football Kick	4	30.8
Tether Ball	3	23.8
Swimming	3	23.8
Roller Skating	2	15.4
Ice Skating	2	15.4
Tobogganing	1	7.7
Kit Flying	1	7.7
Coasting	1	7.7

Tennis was played in 61.5 per cent of the hospitals, table tennis, croquet, shuffleboard and pocket billiards each were a part of the programs

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Horseshoes	5	38.4
Yard Games	5	38.4
Badminton	5	38.4
Paddle Tennis	5	38.4
Goal Ball	4	30.8
Skating	4	30.8
Football Kick	4	30.8
Tether Ball	3	23.8
Swimming	3	23.8
Roller Skating	2	15.4
Ice Skating	2	15.4
Tobogganing	1	7.7
Kit Flying	1	7.7
Dancing	1	7.7

Tennis was played in 61.5 per cent of the hospitals, table tennis, croquet, shuffleboard and pocket billiards each were a part of the programs

in 53.8 per cent of the installations. Billiards, horseshoes, ward games, badminton, and paddle tennis rank next, each being used in 38.4 per cent of the hospitals. It is surprising to see that 30.8 per cent of the hospitals had skiing as a winter sport. This same per cent had plain football kicking as an activity. Tether ball and swimming were on a par, each totaling 23.8 per cent of the thirteen hospitals. Roller skating and ice skating were enjoyed at only 15.4 per cent of the hospitals, while toboggining, coasting, and kit flying each were on a par, each occuring in 7.7 per cent of the hospitals.

TABLE V

The Group Games and Activities Used in the Physical Education Programs of the Thirteen Hospitals

Games and Activities	No. of Hospitals	Per Cent
Field Day Activities	13	100
Hikes	11	84.3
Low Organization Games	8	61.5
Gymnasium Games	6	46.2
Relays	6	46.2
Formal Exercises	6	46.2
Goal Hi	4	30.8
Picnics	4	30.8
Cage Ball	1	7.7

Group games and other type activities were popular in the thirteen hospitals. Field day events, hikes, and low organization games were at the top of the list being employed at 100 per cent, 84.3 per cent, and 61.5 per cent respectively. Three other activities, gymnasium games, relays, formal exercise, each were a part of 46.2 per cent of the hospitals. Picnics and goal hi were each a part of 30.8 per cent of the various programs, and cage ball was used in 7.7 per cent of the hospitals.

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TABLE V

The Group Games and Activities Used in the Physical Education Programs of the Thirteen Hospitals

Games and Activities	No. of Hospitals	Per Cent
Field Day Activities	13	100
Hikes	11	84.6
Low Organization Games	8	61.5
Gymnasium Games	6	46.2
Relays	6	46.2
Formal Exercises	6	46.2
Coal Hi	4	30.8
Picnics	4	30.8
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From Table VI it is possible to see the extent to which intramural and intermural activities were used in the programs.

TABLE VI

Intramural and Intermural Athletic Activities in the Thirteen Hospitals Observed

Activities	No. of Hospitals	Per Cent
Intramurals	9	69.2
Softball	7	53.8
Billiards	5	38.4
Pocket Billiards	5	38.4
Table Tennis	4	30.8
Tag Football	4	30.8
Bowling	3	23.8
Badminton	1	7.7
Basketball	1	7.7
Shuffleboard	1	7.7
Tennis	1	7.7
Baseball	1	7.7
Intermurals		
Athletic Trips	7	53.8
Softball	5	38.4
Baseball	4	30.8
Bowling	3	23.8
Basketball	1	7.7

Softball was used in both the intramural and intermural programs, being in 53.8 per cent, and 38.4 per cent of the respective programs of the hospitals. Billiards and pocket billiards, each were in 38.4 per cent of the hospital intramural programs, while table tennis, tag football, and bowling were in 30.8 per cent, 30.8 per cent, and 23.8 per cent respectively, of the intra mural programs. Bowling was also in 23.8 per cent of the intermural programs. Badminton, basketball, shuffleboard, tennis, and baseball were each played in 7.7 per cent of the hospitals intramural programs.

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Basketball	1	7.7
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Tennis	1	7.7
Baseball	1	7.7
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Athletic trips for intermural activities were taken by 53.8 per cent of the hospitals. Baseball was included in the intermural programs of 30.8 per cent of the institutions; basketball was included in the intermural programs of 7.7 per cent of the hospitals.

Table VII shows a comparison of the activities used by those hospitals maintaining a physical education program (Group A), and the activities pursued in the hospitals not sponsoring a physical education program (Group B).

TABLE VII

A Comparison of the Activities in Hospitals with and without a Physical Education Program

	Group A Thirteen Hospitals Having Physical Education Programs		Group B Ten Hospitals not Having Physical Education Programs	
Items	No. of Hospitals	Per Cent	No. Of Hospitals	Per Cent
Team Games				
Softball	8	61.5	7	70
Volleyball	8	61.5	3	30
Basketball	9	69.2	2	20
Bowling	8	61.5	1	10
Tag Football	4	30.8	1	10
Individual Sports				
Badminton	5	38.4	4	40
Croquet	7	53.8	4	40
Tennis	8	61.5	3	30
Goal Hi	4	30.8	1	10
Group Games and Activity				
Low Organization Games	8	61.5	1	10
Hikes	11	84.3	1	10

Athletic trips for intramural activities were taken by 53.8 per cent of the hospitals. Baseball was included in the intramural programs of 30.8 per cent of the institutions; basketball was included in the intramural programs of 7.7 per cent of the hospitals.

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TABLE VII

A Comparison of the Activities in Hospitals with and without a Physical Education Program

Items	Group A: Thirteen Hospitals Having Physical Education Programs		Group B: Ten Hospitals not Having Physical Education Programs	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Team Games				
Softball	8	61.5	7	70
Volleyball	8	61.5	3	30
Basketball	9	69.2	8	80
Bowling	8	61.5	1	10
Tag Football	4	30.8	1	10
Individual Sports				
Badminton	5	38.4	4	40
Croquet	7	53.8	4	40
Tennis	8	61.5	3	30
Golf Hi	4	30.8	1	10
Group Games and Activity				
Low Organization Games	8	61.5	1	10
Hikes	11	84.8	1	10

It is easily seen that more hospitals in Group A had the activities functioning than the hospitals in Group B. Softball, volleyball, and bowling each were used in 61.5 per cent of Group A as compared to 70 per cent, 30 per cent, and 10 per cent respectively in Group B. Basketball, and tag football were played in 69.3 per cent, and 30.8 per cent of Group A, in comparison to 20 per cent and 10 per cent in Group B. The individual sports, badminton, croquet, tennis, and goal hi, were played in 38.4 per cent, 53.8 per cent, 61.5 per cent, 30.8 per cent respectively of Group A, and only 40 per cent, 40 per cent, 30 per cent, and 10 per cent respectively in Group B. Games of low organization were present in 61.5 per cent of Group A as compared to the 10 per cent in Group B. In 84.3 per cent of Group A patients participated in hikes,while only 10 per cent of Group B go out for hikes.

By refering to Table III it can be noted that baseball was played in the hospitals having a physical education program, and by checking Table VIII it is seen that baseball was not included in the hospitals not having a physical education program.

In comparing the number of individual sports offered by the hospitals having a physical education program (Table IV) and those which did not have a program in physical education, (Table VII, Group B), it is quite apparent that there was a smaller variety in the latter group.

A comparison of the group games and activities listed in Table V and those listed in Table VII, Group B, shows the greater number of the activities that were enjoyed in the hospitals having a physical education program as compared to those which did not sponsor a program of physical education.

All 23 of the hospitals observed had recreational programs. Tables

It is easily seen that more hospitals in Group A had the activities functioning than the hospitals in Group B. Softball, volleyball, and bowling each were used in 81.8 per cent of Group A as compared to 70 per cent, 30 per cent, and 10 per cent respectively in Group B. Basketball, and tag football were played in 89.3 per cent, and 78.6 per cent of Group A, in comparison to 30 per cent and 10 per cent in Group B. The individual sports, badminton, croquet, tennis, and golf, were played in 32.4 per cent, 32.8 per cent, 81.8 per cent, 30.8 per cent respectively of Group A, and only 40 per cent, 40 per cent, 30 per cent, and 10 per cent respectively in Group B. Cases of low organization were present in 81.8 per cent of Group A as compared to the 10 per cent in Group B. In 32.3 per cent of Group A patients participated in hikes, while only 10 per cent of Group B go out for hikes.

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All 23 of the hospitals observed had recreational programs. Tables

VIII through X refer to those programs.

The number of institutions having movies for patient recreation is shown in Table VIII.

TABLE VIII

The Number and Percentage of Hospitals Including Movies in Their Recreation Program in the Twenty-three Visited

Type of Movie and No. of Shows	No. of Hospitals	Per Cent
35 mm. Community Type		
1 each week	15	65.2
3 each week	4	17.4
2 each week	2	8.7
3 each month	1	4.3
16 mm. Community Movie		
1 each week	1	4.3
16 mm. Closed Ward Movie		
1 each week (minimum)	7	30.4

The 35 mm. community type movie, which was shown one day a week, afternoon and evening, was scheduled at 65.2 per cent of the hospitals. Of the other hospitals, 17.4 per cent had shows 3 times a week and 8.7 per cent had shows twice a week, and 4.3 per cent had 3 shows a month. At only 4.3 per cent of the hospitals was there a 16 mm. community type movie shown, and this was once a week. At 30.4 per cent of the hospitals a 16 mm. movie was shown in the closed wards, at a minimum of once weekly. These closed ward patients can not leave the ward to attend the community movies.

Table IX makes evident those hospitals which included dances and dance instruction in the recreation program.

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Table IX makes evident those hospitals which included dances and dance instruction in the recreation program.

TABLE IX

Number and Percentage of Hospitals of the Twenty-three Observed, which Included Dances and Dance Instruction in their Recreation Program

No. of Dances Held	No. of Hospitals	Per Cent
4 each month	12	52.2
1 each month	5	21.7
2 each month	3	13
6 each year	3	13
Dance Instruction	4	17.4

Four dances a month were held at 52.2 per cent of the hospitals. The remaining hospitals had dances once a month, twice a month, and six times a year, at 21.7 per cent and 13 per cent for the last two respectively. Only 17.4 per cent of the institutions had dancing instruction in the program.

Table X sets forth the general activities in the recreation programs.

TABLE X

General Recreational Activities in the Twenty-three Hospitals

Activity	No. of Hospitals	Per Cent
Holiday Programs	23	100
Carnivals	23	100
Parties	23	100
Ward Games	23	100
Amateur Shows	22	95.7
Picnics	21	91.3
Music Appreciation	15	65.2
Trips	15	65.2
Quiz Contests	7	30.4
Live Radio Shows	5	21.7
United Service Organization Shows	4	17.4
Chess Contests	1	4.3

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Carnivals	23	100
Parties	23	100
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Amateur Shows	22	95.7
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Music Appreciation	15	65.2
Trips	15	65.2
Quiz Contests	7	30.4
Live Radio Shows	5	21.7
United Service Organization Shows	4	17.4
Chess Contests	1	4.3

For obvious reasons, it would entail too lengthy and complicated a procedure to list each individual unit of the holiday programs, carnivals,

and parties. All hospitals visited had holiday programs, carnivals, parties, and ward games; 95.7 per cent had amateur shows, and 91.3 per cent had picnics. Music appreciation and recreational trips each were enjoyed at 65.2 per cent of the hospitals. There were quiz contests, live radio shows, United Service Organization shows, and a chess contest at 30.4 per cent, 21.7 per cent, 17.4 per cent, 4.3 per cent of the hospitals respectively.

In Table XI are seen the general activities of the corrective therapy programs.

TABLE XI

The General Classification of Corrective Therapy Activities in the Four Hospitals

Activity	No. of Hospitals	Per Cent
Prescribed Activity	4	100
Trips	2	50
Game Activity	1	25

The activities of a corrective therapy program do not lend themselves to any one type, but rather to individually prescribed exercises and/or games. Thus Table XI has been organized under general classifications. A prescribed program of activity is carried on in 100 per cent of the institutions, only 50 per cent include outside trips, and 25 per cent of the programs had games and contests in the program.

The various factors related to the development of the programs are shown in Table XII.

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In Table XI are seen the general activities of the corrective therapy programs.

TABLE XI

The General Classification of Corrective Therapy Activities in the Four Hospitals

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Trips	3	30
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The various factors related to the development of the programs are shown in Table XII.

TABLE XII

Some Motivating Factors Related to the Development of the Activities in the Various Programs

Item	Thirteen Hospitals with Physical Education Programs		Twenty-three Hospitals with Recreation Programs		Four Hospitals with Corrective Therapy Programs	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Motivating Interest						
Hospital Paper	9	69.2	9	39.1		
Hospital Paper. Bulletin Boards & Radio Programs	4	30.8	4	17.4		
Bulletin Boards	4	30.8	4	17.4		
Recreation Room	1	7.7	1	4.3		
Privileges	1	7.7	1	4.3		
Personal Situations					4	100
Use of Volunteers						
Game Officers	4	30.8				
Parties Entertainers			20	87		
Assistants for Wheel Chair Patients					1	25
Contest Officials					1	25
Allow for Individual Patient Differences	10	76.9	23	100	4	100
Patient Management	11	84.3	21	91.3	4	100

TABLE XII

Some Motivating Factors Related to the Development of the Activities in the Various Programs

Item	Thirteen Hospitals with Physical Rehabilitation Programs		Twenty-three Hospitals with Recreation Programs		Four Hospitals with Occupational Therapy Programs	
	No. of hospitals	Per Cent	No. of hospitals	Per Cent	No. of hospitals	Per Cent
Motivating Interest						
Hospital Paper	9	69.2	9	39.1		
Hospital Paper, Bulletin Boards & Radio Programs	4	30.8	4	17.4		
Bulletin Boards	4	30.8	4	17.4		
Recreation Room	1	7.7	1	4.3		
Privileges	1	7.7	1	4.3		
Personal Solicitations					4	100
Use of Volunteers						
Game Officers	4	30.8				
Parties Entertainers			20	87		
Assistants for Mental Diagnostic Tests					1	25
Patients					1	25
Contest Officials						
Allow for Individual Patient Differences	10	76.9	22	100	4	100
Patient Management	11	84.3	21	91.3	4	100

From this table it may be seen that 39.1 per cent or the institutions had a hospital paper and used it for motivating interest, 17.4 per cent use the hospital paper, bulletin boards, and radio programs, 17.4 per cent used bulletin boards only, 4.3 per cent used the recreation room and this same per cent used hospital privileges as motivating interest.

Volunteer groups were used by 87 per cent of the hospitals by the recreation department, in assisting with, or sponsoring, parties or other means of entertainment. The physical education department in 30.8 per cent of the hospitals having definite Physical Education programs, had volunteers doing certain types of officiating; and the corrective therapy unit in 25 per cent of the hospitals having definite Corrective Therapy programs, had volunteers to aid the wheel chair patients. 25 per cent of the institutions had volunteers to help run contests.

The recreation departments of all the hospitals allowed for individual patient differences. 76.9 per cent of the physical education programs and 100 per cent of the corrective therapy programs allow for individual differences.

In 91.3 per cent of the hospital recreation programs, patients were allowed to contribute their efforts either in decorating, coaching, or producing an activity. Patients helped manage various teams in 84.3 per cent of the hospital physical education programs and 100 per cent of the corrective therapy programs.

Table XII does not show that future plans for an improved program of physical education had been indicated in 43.5 per cent of the hospitals, and 21.7 per cent of the hospitals recreational programs. No future plans were set forth for the corrective therapy programs.

From this table it may be seen that 36.1 per cent of the institutions had a hospital paper and used it for motivating interest, 17.4 per cent used the hospital paper, bulletin boards, and radio programs, 17.4 per cent used bulletin boards only, 4.3 per cent used the recreation room and this same per cent used hospital privileges as motivating interest.

Volunteer groups were used by 87 per cent of the hospitals by the recreation department, in assisting with, or sponsoring, parties or other means of entertainment. The physical education department in 30.8 per cent of the hospitals having definite Physical Education programs, had volunteers doing certain types of officiating; and the corrective therapy unit in 25 per cent of the hospitals having definite Corrective therapy programs, had volunteers to aid the wheel chair patients. 88 per cent of the institutions had volunteers to help run contests.

The recreation departments of all the hospitals allowed for individual patient difference. 76.9 per cent of the physical education programs and 100 per cent of the corrective therapy programs allow for individual differences.

In 91.3 per cent of the hospital recreation programs, patients were allowed to contribute their efforts either in decorating, coaching, or producing an activity. Patients helped manage various teams in 64.3 per cent of the hospital physical education programs and 100 per cent of the corrective therapy programs.

Table XII does not show that future plans for an improved program of physical education had been indicated in 44.8 per cent of the hospitals, and 21.7 per cent of the hospitals recreational programs. No future plans were set forth for the corrective therapy programs.

TABLE XIII

Responsibility for the Scheduling of Activities and the Time Allotments in the Hospitals

Item	Thirteen Hospitals with Physical Education Programs		Twenty-three Hospitals with Recreation Programs		Four Hospitals with Corrective Therapy Programs	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Scheduling of Activities						
Chief of Recreation and Athletic Section	3	23.8	3	13		
Athletic Director	1	7.7				
Chief Occupational Therapy	7	53.8	8	34.8		
Recreation Department	1	7.7	5	21.7		
Recreation Committee	1	7.7	1	4.3		
Music Director			1	4.3		
Medical Staff			1	4.3		
Assistant Superintendent			4	17.4		
Chief Corrective Therapy					4	100
Printed Schedules						
Mimeographed	4	30.8	8	34.8		
Typed (Department Heads Only)			1	4.3	4	100
Time Allotments						
Definite Time Alloted	13	100	23	100	4	100

TABLE XIII

Responsibility for the coordinating of activities and the time
allotments in the hospitals

Item	No. of hospitals	Per Cent	No. of hospitals	Per Cent	Twenty-three hospitals with physical medication programs	Twenty-three hospitals with occupational therapy programs
Responsibility of Activities						
Chief of Recreation and Athletic Section	3	23.8	5	15		
Athletic Director	1	7.7				
Chief Occupational therapy	1	7.7	8	24.8		
Recreation Department	1	7.7	3	9.7		
Recreation Committee	1	7.7	1	3.3		
Music Director			1	3.3		
Medical Staff			1	3.3		
Patient Corrective Therapy and System & Supervision			4	12.4		
Other Combinations	4	30.9			100	
Allocation of Time						
Typed (Department Heads Only)	4	30.8	8	24.8		
Time Allotments			1	3.2		
Definite Time Allotted	13	100	23	100	4	100

Table XIII specifies those persons who schedule the activities for the three programs, whether there was a printed schedule, and the various time allotments.

The scheduling of activities was done by a variety of persons in those hospitals having a definite program in physical education. 23.8 per cent, 7.7 per cent, 53.8 per cent, 7.7 per cent, 7.7 per cent. of the scheduling was done by the Chief of Recreation and Athletic Section, Athletic Director, Chief of Occupational Therapy, Recreation Department and Recreation Committee respectively. The recreational activities were scheduled by the Chief of Recreation and Athletic Section in 13 per cent; Chief of Occupational Therapy and the Recreation Department, each in 34.8 per cent, and 21.7 per cent respectively. The Recreation Committee, Music Director, and Medical Staff each in 4.3 per cent, and the Assistant Superintendent in 17.4 per cent of the hospitals which scheduled the recreational activities. The Chief of Corrective Therapy made the schedule for that department in 100 per cent of the hospitals which had a specific corrective therapy program.

Mimeographed schedules were provided by 30.8 per cent of the hospitals which had an organized physical education program, and in 34.8 per cent of the recreation programs. In 4.3 per cent of the hospitals the recreation program schedules were typed for the department heads only. This holds true in 100 per cent of the hospitals which had a program of corrective therapy.

All the hospitals visited had definite time allotments for recreation, 100 per cent of those which had a program had definite time for physical education, and 100 per cent of the hospitals which had corrective therapy programs had definite times for those activities.

The hospitals which had facilities for enjoying outdoor team game part-

Table XLII specifies those persons who scheduls the activities for the three programs, whether there was a printed schedule, and the various time allotments.

The scheduling of activities was done by a variety of persons in these hospitals having a definite program in physical education. 53.8 per cent, 7.7 per cent, 53.8 per cent, 7.7 per cent, 7.7 per cent. or the scheduling was done by the Chief of Recreation and Athletic section, Athletic Director, Chief of Occupational Therapy, Recreation Department and Recreation Committee respectively. The recreational activities were scheduled by the Chief of Recreation and Athletic Section in 15 per cent; Chief of Occupational Therapy and the Recreation Department, each in 84.8 per cent, and 81.7 per cent respectively. The Recreation Committee, Music Director, and Medical Staff each in 4.8 per cent, and the Assistant Superintendent in 17.4 per cent of the hospitals which scheduled the recreational activities. The Chief of Corrective Therapy made the schedule for that department in 100 per cent of the hospitals which had a specific corrective therapy program.

Mimeographed schedules were provided by 30.8 per cent of the hospitals which had an organized physical education program, and in 34.8 per cent of the recreation programs. In 4.8 per cent of the hospitals the recreation program schedules were typed for the department needs only. This holds true in 100 per cent of the hospitals which had a program of corrective therapy.

All the hospitals visited had definite time allotments for recreation, 100 per cent of those which had a program had definite time for physical education, and 100 per cent of the hospitals which had corrective therapy programs had definite times for those activities.

The hospitals which had facilities for enjoying outdoor team game part-

icipation in physical education are shown in Table XIV.

TABLE XIV

The Outdoor Facilities for Team Games at the Twenty-three Hospitals

Type of Facility	No. of Hospitals	Per Cent
Diamonds (One or More)		
Softball	9	39.1
Baseball	8	34.8
Softball and Baseball	6	26.1
Courts (One or More)		
Volleyball	17	73.9
Basketball	12	52.2
Areas (One or More)		
Football	2	8.7

The greater number of volleyball and basketball courts is clearly seen by this table. There was at least one volleyball court in 73.9 per cent, and a basketball court in 52.2 per cent of the hospitals. Softball diamonds were in 39.1 per cent, baseball diamonds in 34.8 per cent, and one of each diamond was found in 26.1 per cent of the installations. Tag football areas were in the minority, for only 8.7 per cent of the hospitals had an area set aside for this sport.

In Table XV all the outdoor facilities for use in individual games are listed

There were 78.3 per cent of the hospitals which had tennis courts, 73.9 per cent had croquet courts, 43.5 per cent had badminton courts, 34.8 per cent had horseshoe courts, 26.1 per cent had swings, 26.1 per cent had shuffle-board courts, 17.4 per cent had see saws, and 17.4 per cent had ice skating areas. The following facilities each were in 8.7 of the hospitals; flood

TABLE XIV

The Outdoor Facilities for Team Games at the Twenty-three Hospitals

Type of Facility	No. of Hospitals	Per Cent
Diamonds (One or More)		
Softball	9	39.1
Baseball	8	34.8
Softball and Baseball	6	26.1
Courts (One or More)		
Volleyball	17	73.9
Basketball	13	56.5
Areas (One or More)		
Football	2	8.7

The greater number of volleyball and basketball courts is clearly seen by this table. There was at least one volleyball court in 73.9 per cent, and a basketball court in 56.5 per cent of the hospitals. Softball diamonds were in 39.1 per cent, baseball diamonds in 34.8 per cent, and one of each diamond was found in 26.1 per cent of the installations. Football areas were in the minority, for only 8.7 per cent of the hospitals had an area set aside for this sport.

In Table XV all the outdoor facilities for use in individual games are listed

There were 73.9 per cent of the hospitals which had tennis courts, 73.9 per cent had croquet courts, 43.5 per cent had recreation courts, 34.8 per cent had horseshoe courts, 26.1 per cent had swings, 26.1 per cent had shuffle-board courts, 17.4 per cent had ice rinks, and 17.4 per cent had ice skating areas. The following facilities each were in 8.7 of the hospitals: floor

TABLE XV

Outdoor Facilities for Individual Games at the Twenty-three Hospitals

Type of Facility	No. of Hospitals	Per Cent
(One or More in Each Case)		
Tennis Courts	18	78.3
Croquet Courts	17	73.9
Badminton Courts	10	43.5
Horseshoe Courts	8	34.8
Shuffleboard Courts	6	26.1
Swings	6	26.1
See Saws	4	17.4
Ice Skating Area	4	17.4
Ice Skating Area Floodlights	2	8.7
Handball	2	8.7
Tether Ball Pole	2	8.7
Merry-go-round	2	8.7
Toboggan Slide	2	8.7
Roller Skating Area	2	8.7
Archery Range	2	8.7
Boxing Ring	1	4.3
Jungle Jim	1	4.3
Slide	1	4.3
Golf Putting Area	1	4.3
Three Hole Golf Course	1	4.3
Nine Hole Golf Course	1	4.3
Swimming Pool	1	4.3
Ski Trail	1	4.3

lights for ice skating area, handball courts, tether ball poles, merry-go-round, togoggan slide, roller skating area, and an archery range. In 4.3 per cent of the hospitals there was each of the following; boxing ring, jungle Jim, slide, golf putting area, three hole golf course, nine hole golf course, swimming pool, and a ski trail.

An inspection of Table XVI will disclose the outdoor facilities available for recreation.

TABLE XV

Outdoor facilities for individual games at the
Twenty-three hospitals

Type of facility	No. of hospitals	Per Cent
(One or more in each Case)		
Tennis Courts	18	78.3
Croquet Courts	17	73.9
Badminton Courts	10	43.5
Horseshoe Courts	8	34.8
Shuffleboard Courts	6	26.1
Swings	6	26.1
Bee Gums	4	17.4
Ice Skating Area	4	17.4
Ice Skating Area Floodlights	3	13.7
Handball	2	8.7
Tether Ball Pole	2	8.7
Merry-go-round	2	8.7
Toboggan Slide	2	8.7
Roller Skating Area	2	8.7
Archery Range	2	8.7
Boxing Ring	1	4.3
Jungle Gym	1	4.3
Slide	1	4.3
Golf Putting Area	1	4.3
Three hole Golf Course	1	4.3
Nine Hole Golf Course	1	4.3
Swimming Pool	1	4.3
Ski Trail	1	4.3

lights for ice skating area, handball courts, tether ball poles, merry-go-round, toboggan slide, roller skating area, and an archery range. In 4.3 per cent of the hospitals there was each of the following: boxing ring, jungle gym, slide, golf putting area, three hole golf course, nine hole golf course, swimming pool, and a ski trail.

An inspection of Table XVI will disclose the outdoor facilities available for recreation.

TABLE XVI

The Outdoor Recreational Facilities at the Twenty-three Hospitals

Type of Facility	No. of Hospitals	Per Cent
(One or More in each Case)		
Picnic Area	12	52.2
Ponds	5	21.7
Band Stands	2	8.7
Picnic Area with Softball Diamond and Volleyball Court	1	4.3
Picnic Area with Swings	1	4.3
Mechanical Merry-go-round	1	4.3

Picnic areas which had at least a fireplace and benches were found in 52.2 per cent of the hospitals, 21.7 per cent had ponds on the grounds, and 8.7 per cent had band stands for holding concerts. There was a picnic area, with a softball diamond and a volleyball court in 4.3 per cent of the hospitals, a picnic area with swings in 4.3 per cent of the hospitals. A mechanical merry-go-round was found in 4.3 per cent of the hospitals.

The outdoor facilities for the corrective therapy programs are shown in Table XVII

TABLE XVII

The Number and Per Cent of Hospitals Having Outdoor Facilities for a Corrective Therapy Program in the Twenty-three Hospitals

Type of Facility	No. of Hospitals	Per Cent
(One or More in each Case)		
Softball Diamonds	4	17.4
Basketball Court	4	17.4
Croquet Courts	4	17.4
Horseshoes	4	17.4
Goal Hi	4	17.4
Tether Ball Pole	1	4.3
Striking Bag and Stand	1	4.3
Training Bag and Stand	1	4.3
Chinning Bar	1	4.3

TABLE XVI

The Outdoor Recreational Facilities at the
Twenty-three Hospitals

Type of Facility	No. of Hospitals	Per Cent
(One or More in each Case)		
Picnic Area	13	56.5
Ponds	5	21.7
Band Stands	2	8.7
Picnic Area with Softball Diamond and Volleyball Court	1	4.3
Picnic Area with Swings	1	4.3
Mechanical Merry-go-round	1	4.3

Picnic areas which had at least a fireplace and benches were found in 56.5 per cent of the hospitals, 21.7 per cent had ponds on the grounds, and 8.7 per cent had band stands for holding concerts. There was a picnic area, with a softball diamond and a volleyball court in 4.3 per cent of the hospitals, a picnic area with swings in 4.3 per cent of the hospitals. A mechanical merry-go-round was found in 4.3 per cent of the hospitals.

The outdoor facilities for the corrective therapy programs are shown in Table XVII

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The Number and Per Cent of Hospitals Having Outdoor Facilities
for a Corrective Therapy Program in the Twenty-three Hospitals

Type of Facility	No. of Hospitals	Per Cent
(One or More in each Case)		
Softball Diamonds	4	17.4
Basketball Court	4	17.4
Croquet Courts	4	17.4
Horseshoes	4	17.4
Goal Ki	4	17.4
Tether Ball Pole	1	4.3
Striking Bag and Stand	1	4.3
Training Bag and Stand	1	4.3
Chinning Bar	1	4.3

The corrective therapy programs had the following facilities in 17.4 per cent of the hospitals; softball diamonds, basketball courts, croquet courts, horseshoe courts, and goal hi, There were 4.3 per cent of the hospitals which had each of these facilities; tether ball pole, striking bag and stand, training bag and stand, and chinning bar.

Table XVIII indicates how many hospitals had, or took advantage of "Off-Station" facilities in the three programs.

TABLE XVIII

The Number and Percentage of the Twenty-three Hospitals Visited Making use of, or Possessing "Off-Station" Facilities

	Physical Education		Recreation		Corrective Therapy	
Facilities	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Hospital Owned						
Cabin			1	4.3		
Privately Owned						
Golf Course	4	17.4			1	4.3
Bowling Alleys	2	8.7				
Theaters			4	17.4		
Y.M.C.A.	2	8.7			1	4.3
Picnic Grounds, Pools, etc.	4	17.4	4	17.4		
Ball Parks	4	17.4	4	17.4		

Of the twenty-three hospitals visited 4.3 per cent had a facility off the station for recreational use. In physical education, golf courses, picnic grounds, and ball parks, were used in 17.4 per cent of the hospitals. This same department visited bowling alleys and Y.M.C.A. in 8.7 per cent of the institutions.

The recreation department in 17.4 per cent of the hospitals made use of local theater, picnic grounds etc., and ball parks, respectively.

The corrective therapy departments did not use as many of the facilities

the corrective therapy programme and the following facilities in 17.4 per cent of the hospitals; softball diamonds, basketball courts, croquet courts, horseshoe courts, and golf ni; there were 4.3 per cent of the hospitals which had each of these facilities; tether ball pole, skating rink and stand, training rog and stand, and obinning bar.

Table XVIII indicates how many hospitals han, or took advantage of "Off-station" facilities in the three programs.

TABLE XVIII

The Number and Percentage of the Twenty-three Hospitals Visited Making Use of, or Possessing "Off-station" Facilities

Facilities	Physical Education		Recreation		Corrective Therapy	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Hospital owned						
Cabin			1	4.3		
Privately owned						
Golf Courses	4	17.4			1	4.3
Bowling Alleys	2	8.7				
Theaters			4	17.4		
Y.M.C.A.	2	8.7			1	4.3
Picnic Grounds, Pools, etc.	4	17.4	4	17.4		
Ball Parks	4	17.4	4	17.4		

Of the twenty-three hospitals visited 4.3 per cent had a facility on the station for recreational use. In physical education, golf courses, picnic grounds, and ball parks, were used in 17.4 per cent of the hospitals. This same department visited bowling alleys and Y.M.C.A. in 8.7 per cent of the institutions.

The recreation department in 17.4 per cent of the hospitals made use of local theater, picnic grounds etc., and ball parks, respectively.

The corrective therapy departments did not use as many of the facilities

for only in 4.3 per cent of the hospitals did they go to the local Y.M.C.A.

The number of hospitals having indoor facilities for use in physical education, recreation and corrective therapy are shown in Table XIX

TABLE XIX

The Number and Percentage of Hospitals Having Indoor Facilities in the Twenty-three Hospitals Visited

	Physical Education		Recreation		Corrective Therapy	
Facilities	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Yes	8	34.8	23	100	4	17.4
No	15	65.2			19	82.6

There were 100 per cent of the hospitals which had indoor facilities for recreation, 34.8 per cent had facilities for physical education, and 17.4 per cent had indoor facilities for carrying on a corrective therapy program.

Table XX shows what the indoor facilities were for physical education and corrective therapy.

TABLE XX

Reported Indoor Facilities Used for Physical Education and Corrective Therapy in the Twenty-three Hospitals

	Physical Education		Corrective Therapy	
Type of Facility	No of. Hospitals	Per Cent	No, of Hospitals	Per Cent
Gymnasium	3	13	1	4.3
Improvised Gymnasium	3	13	3	13
Swimming Pool	2	8.7	2	8.7
Recreation Center	1	4.3		
Chapel	1	4.3		
Recreation Hall	1	4.3		
Corrective Room			4	17.4

Of the twenty-three hospitals visited, 13 per cent had a gymnasium, 13 per cent had an improvised gymnasium, and only 8.7 per cent had an indoor swimming pool. In a few instances available facilities were converted to allow participation in modified physical education activities.

A recreation hall, recreation center, and a chapel were each used in 4.3 per cent of the hospitals for physical education.

In 17.4 per cent of the hospitals a corrective room was set aside for use by the Corrective Therapy Department.

TABLE XXI

Equipment and Facilities Available for Physical Education and Corrective Therapy Programs

No. and Type of Facility	Physical Education		Corrective Therapy	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Gymnasium (One or more in each case)				
Basketball Courts	3	13	1	4.3
Volleyball Courts	3	13	1	4.3
Badminton Courts	3	13	1	4.3
Striking Bags	3	13	1	4.3
Traveling Rings	2	8.7	1	4.3
Side Horse	2	8.7	1	4.3
Buck Horse	2	8.7	1	4.3
Parallel Bars	2	8.7	1	4.3
Training Bags	2	8.7	1	4.3
High Bar	1	4.3	1	4.3
Squash Court	1	4.3	1	4.3
Boxing Ring	1	4.3	1	4.3
Moveable Basketball Goods	1	4.3	1	4.3
Extra Basketball Goods	1	4.3	1	4.3
Rowing Machines	1	4.3	1	4.3
Vaulting Boom	1	4.3		
Improvised Gymnasium				
Adapted Shuffleboard Court	3	13	3	13

Of the twenty-three hospitals visited, 13 per cent had a gymnasium, 13 per cent had an improvised gymnasium, and only 8.7 per cent had an indoor swimming pool. In a few instances available facilities were converted to allow participation in modified physical education activities.

A recreation hall, recreation center, and a chapel were each used in 4.3 per cent of the hospitals for physical education.

In 17.4 per cent of the hospitals a corrective room was set aside for use by the Corrective Therapy Department.

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Equipment and Facilities Available for Physical Education and Corrective Therapy Programs

No. and Type of Facility	Physical Education		Corrective Therapy	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Gymnasium (One or more in each case)				
Basketball Courts	3	13	1	4.3
Volleyball Courts	3	13	1	4.3
Badminton Courts	3	13	1	4.3
Striking Bags	3	13	1	4.3
Traveling Rings	2	8.7	1	4.3
Side Horse	2	8.7	1	4.3
Buck Horse	2	8.7	1	4.3
Parallel Bars	2	8.7	1	4.3
Training Bags	2	8.7	1	4.3
High Bar	1	4.3	1	4.3
Squash Court	1	4.3	1	4.3
Boxing Ring	1	4.3	1	4.3
Moveable Basketball Goals	1	4.3	1	4.3
Extra Basketball Goals	1	4.3	1	4.3
Rowing Machines	1	4.3	1	4.3
Vaulting Boom	1	4.3		
Improvised Gymnasium				
Adapted Shuffleboard Court	3	13	3	13

TABLE XXI (Continued)

No. and Type of Facility	Physical Education		Corrective Therapy	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Rowing Machine	3	13	3	13
Striking Bags	3	13	3	13
Training Bags	3	13	3	13
Exercise Bicycles	3	13	3	13
Wall Weights	3	13	3	13
Bar Bell Sets	3	13	3	13
Badminton	2	8.7	2	8.7
Volleyball	2	8.7	2	8.7
Basketball	2	8.7	2	8.7
Parallel Bars	2	8.7	2	8.7
Corrective Room				
Shoulder Wheels			4	17.4
Wrist Roll			4	17.4
Training Bags			4	17.4
Exercise Bicycles			4	17.4
Walking Aids			4	17.4
Chinning Bars			4	17.4
Recreation Center				
Adapted Shuffleboard Court	1	4.3		
Adapted Badminton Court	1	4.3		
Chapel				
Basketball Goals	1	4.3		
Recreation Hall				
Volleyball Court	1	4.3		
Badminton Court	1	4.3		

In the gymnasiums 13 per cent had at least one basketball, volleyball, and badminton court, a striking bag and stand. There were 8.7 per cent which had traveling rings, side horse, buck horse, parallel bars, and training bags. In 4.3 per cent of the gymnasiums there was a high bar, squash court, boxing ring, moveable and extra basketball goods, rowing machines, and a vaulting boom, respectively.

The improvised gymnasium in 13 per cent of the hospitals had at least

TABLE XXI (Continued)

No. and Type of Facility	Physical Education		Corrective Therapy	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Rowing Machine	3	13	3	13
Punching Bags	3	13	3	13
Training Bags	3	13	3	13
Exercise Bicycles	3	13	3	13
Wall Weights	3	13	3	13
Bar Bell Sets	3	13	3	13
Badminton	2	8.7	2	8.7
Volleyball	2	8.7	2	8.7
Basketball	2	8.7	2	8.7
Parallel Bars	2	8.7	2	8.7
Corrective Room				
Shoulder Wheels			4	17.4
Wrist Roll			4	17.4
Training Bags			4	17.4
Exercise Bicycles			4	17.4
Walking Aids			4	17.4
Chinning Bars			4	17.4
Recreation Center				
Adapted Shuffleboard Court	1	4.3		
Adapted Badminton Court	1	4.3		
Chapel				
Basketball Goals	1	4.3		
Recreation Hall				
Volleyball Court	1	4.3		
Badminton Court	1	4.3		

In the gymnasiums 13 per cent had at least one basketball, volleyball, and badminton court, a striking bag and stand. There were 8.7 per cent which had traveling rings, side horse, buck horse, parallel bars, and training bags. In 4.3 per cent of the gymnasiums there was a high bar, squash court, boxing ring, movable and entire basketball goals, rowing machines, and a vaulting boom, respectively.

The improvised gymnasium in 13 per cent of the hospitals had at least

one of the following: adapted shuffleboard court, rowing machine, striking bag, training bag, exercise bicycle, wall pulley weight, and bar bell set. In 8.7 per cent of the cases there were adapted badminton, volleyball, and basketball courts.

The hospitals' corrective rooms included shoulder wheels, wrist rolls, training and striking bags, exercise bicycles, walking aids, and chinning bars in 17.4 per cent of the rooms.

In a recreation center there was an adapted shuffleboard and badminton court.

In a chapel in 4.3 per cent of the hospitals there were basketball goals, and a recreation hall in 4.3 per cent of the hospitals had a volleyball and badminton court.

The equipment and facilities listed for corrective therapy are the same ones used by physical education department.

The type of indoor facilities for recreational activities are shown in Table XXII.

TABLE XXII

The Number and Percentage of Hospitals Having Certain Indoor Recreational Facilities

Type of Facility	No. of Hospitals	Per Cent
Recreation Room	11	47.8
Central Broadcasting System	11	47.8
Bowling Alleys	10	43.5
Chapel	8	34.8
Recreation Hall	5	21.7
Auditorium	3	13
Recreation Center	1	4.3
Amusement Hall	1	4.3
Pavilion	1	4.3
Movie Theater	1	4.3
Club House	1	4.3

one of the following: adapted shuffleboard court, rowing machine, striking bag, training bag, exercise bicycle, wall pulley weight, and bar bell set. In 8.7 per cent of the cases there were adapted badminton, volleyball, and basketball courts.

The hospitals' corrective rooms included shoulder wheels, wrist rolls, training and striking bags, exercise bicycles, walking aids, and chinning bars in 17.4 per cent of the rooms.

In a recreation center there was an adapted shuffleboard and badminton court.

In a chapel in 4.3 per cent of the hospitals there were basketball goals, and a recreation hall in 4.3 per cent of the hospitals had a volleyball and badminton court.

The equipment and facilities listed for corrective therapy are the same ones used by physical education department.

The type of indoor facilities for recreational activities are shown in Table XXII.

TABLE XXII

The Number and Percentage of Hospitals Having Certain Indoor Recreational Facilities

Type of Facility	No. of Hospitals	Per Cent
Recreation Room	11	47.8
Central Broadcasting System	11	47.8
Bowling Alleys	10	43.5
Chapel	8	34.8
Recreation Hall	8	21.7
Auditorium	3	13
Recreation Center	1	4.3
Amusement Hall	1	4.3
Pavilion	1	4.3
Movie Theater	1	4.3
Club Rooms	1	4.3

The most common indoor facility found were the recreation rooms, and the central broadcasting systems, each of which was in 47.8 per cent of the hospitals. Bowling alleys, chapels, recreation halls, and auditoriums were in 43.5 per cent, 34.8 per cent, 21.7 per cent, and 13 per cent, respectively, of the hospitals. Each one of the following, in itself, was in 4.3 per cent of the institutions: recreation center, amusement hall, pavilion, movie theater, and a club house.

Table XXIII indicates the amount of equipment and supplies of the hospitals, through a general classification.

TABLE XXIII

Number and Percentage of the Hospitals Considered to have Adequate, Limited, and Very Limited Equipment

	Physical Education		Recreation		Corrective Therapy	
Classification	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Very Limited	3	13				
Limited	16	69.6	11	47.8		
Adequate	4	17.4	12	52.2	4	17.4

A "very limited" supply of physical education equipment was found in 13 per cent of the hospitals, a "limited" amount in 69.6 per cent and an "adequate"supply in 17.4 per cent of the hospitals.

In 47.8 per cent of the hospitals recreation equipment and supplies were found to be "limited" and 52.2 per cent "adequate".

The corrective therapy equipment and supplies were found to be "adequate" in 17.4 per cent of the hospitals.

Table XXIV shows all information concerning the personnel connected with

TABLE XXIV

Total Personnel Information of the Twenty-three Hospitals

Items	Physical Education		Recreation		Corrective Therapy	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Personnel on Duty						
Full-time	9	39.1	12	52.2	4	17.4
Part-time - Year Round			1	4.3		
Part-time - Summers	4	17.4				
Specific Job Requirements, Examinations, Etc.	4	17.4	4	17.4	4	17.4
Duty - Full-time						
Physical Education Only	8	34.8				
Physical Education and Occupational Therapy	1	4.3				
Recreation Only			11	47.8		
Recreation and Music Director			1	4.3		
Recreation and Occupational Therapy			11	47.8		
Corrective Therapy Only					4	17.4
Duty - Part-time						
Physical Education Only	5	21.7	1	4.3		
Supervision						
Chief of Occupational Therapy	7	30.4	12	52.2		
Athletic Director	4	17.4				
Chief of Special Service			4	17.4		
Recreation Committee	1	4.3	1	4.3		
Recreation Director	1	4.3	2	8.7		

ТАБЛИЦА XXIX

Доход физических лиц в зависимости от источников дохода и типа населенного пункта

Удельный вес источников дохода в общей сумме дохода

Источники дохода	Все населенные пункты		Города с численностью населения, тыс. человек				Сельская местность	
			100 и более		50-100			
	тыс. руб.	%	тыс. руб.	%	тыс. руб.	%	тыс. руб.	%
Заработная плата	1	2	3	4	5	6	7	8
Доходы от подсобных хозяйств	4.3	20.4	4.2	17.4	4.2	17.4	4.3	24.4
Пенсии, пособия и стипендии	2.6	12.3	2.8	11.6	2.8	11.6	2.2	12.5
Доходы от продажи сельскохозяйственных продуктов	1.1	5.2	1.1	4.6	1.1	4.6	1.1	6.3
Доходы от продажи продукции кустарных промыслов	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от продажи имущества	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от сдачи имущества в аренду	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от сдачи в аренду земельных участков	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от авторских вознаграждений, изобретательства и рационализаторства	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от предпринимательской деятельности	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Прочие доходы	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Денежные доходы - всего	21.1	100.0	23.8	100.0	24.2	100.0	17.9	100.0
в том числе:								
Заработная плата	12.7	60.2	14.3	60.1	14.5	59.9	10.8	60.3
Доходы от подсобных хозяйств	4.3	20.4	4.2	17.4	4.2	17.4	4.3	24.4
Пенсии, пособия и стипендии	2.6	12.3	2.8	11.6	2.8	11.6	2.2	12.5
Доходы от продажи сельскохозяйственных продуктов	1.1	5.2	1.1	4.6	1.1	4.6	1.1	6.3
Доходы от продажи продукции кустарных промыслов	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от продажи имущества	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от сдачи имущества в аренду	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от сдачи в аренду земельных участков	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от авторских вознаграждений, изобретательства и рационализаторства	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от предпринимательской деятельности	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Прочие доходы	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Денежные доходы - всего	21.1	100.0	23.8	100.0	24.2	100.0	17.9	100.0
в том числе:								
Заработная плата	12.7	60.2	14.3	60.1	14.5	59.9	10.8	60.3
Доходы от подсобных хозяйств	4.3	20.4	4.2	17.4	4.2	17.4	4.3	24.4
Пенсии, пособия и стипендии	2.6	12.3	2.8	11.6	2.8	11.6	2.2	12.5
Доходы от продажи сельскохозяйственных продуктов	1.1	5.2	1.1	4.6	1.1	4.6	1.1	6.3
Доходы от продажи продукции кустарных промыслов	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от продажи имущества	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от сдачи имущества в аренду	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от сдачи в аренду земельных участков	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от авторских вознаграждений, изобретательства и рационализаторства	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Доходы от предпринимательской деятельности	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6
Прочие доходы	0.1	0.5	0.1	0.4	0.1	0.4	0.1	0.6

TABLE XXIV (Continued)

Items	Physical Education		Recreation		Corrective Therapy	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Male Supervisor of Attendants	1	4.3				
Music Director			1	4.3		
Hospital Employees			1	4.3		
Superintendent			1	4.3		
Chief Physical Medical Rehabilitation Service					4	17.4
Attend Staff Meetings, Clinics, Etc.	10	43.5	13	56.5	4	17.4
Availability of Case Histories for Personnel to Assist Patient	10	43.5	15	65.2	4	17.4
Volunteer Groups	4	17.4	20	87	2	8.7
Future Plans, Included the Desire for:						
Physical Director	10	43.5				
Recreation Director			9	39.1		
Additional Personnel			6	26.1	3	13

TABLE XXIII (Continued)

Multiple Regression Analysis between Criterion Measure and Predictors

Subtest Battery: Mechanical Principles Test

Predictors	Multiple R	Simple r	Beta Weights	Constant
Mechanical Principles Test	.61	.61	.61	10.01
Arithmetic Reasoning	.64	.57	.08	
Mechanical Comprehension	.65	.56	.06	
Shop Information	.65	.54	.04	
Coding Speed	.65	.47	.03	
Numerical Operations	.65	.47	.03	
Tool Knowledge	.65	.54	.03	
Assembly	.65	.49	.02	
Electronics Information	.65	.49	.02	
Automotive Information	.65	.49	.02	

Multiple Regression Equation:

Criterion = .61 (Mechanical Principles Test) + .08 (Arithmetic Reasoning) + .06 (Mechanical Comprehension) + .04 (Shop Information) + .03 (Coding Speed) + .03 (Numerical Operations) + .03 (Tool Knowledge) + .02 (Assembly) + .02 (Electronics Information) + .02 (Automotive Information) + 10.01

Multiple Correlation of Battery with Criterion = .65

Standard Error of Estimate = 4.78

Mean of Criterion = 42.9

Standard Deviation of Criterion = 7.8

Number of Cases = 1,000

the physical education, recreation, and corrective therapy program.

The number of hospitals having full-time persons on duty in their physical education departments totaled 39.1 per cent. The recreation departments of 52.2 per cent of the hospitals had full-time personnel, and 17.4 per cent of the hospitals had full-time employees on duty in corrective therapy.

In 4.3 per cent of the hospitals there was a year round part-time worker in the recreation department. There were 17.4 per cent of the hospitals which have employed part-time summer employees in physical education.

Of the 39.1 per cent of the hospitals having full-time physical education employees, 34.8 per cent had them doing nothing else but physical education, and in 4.3 per cent they did part-time physical education and occupational therapy. In 47.8 per cent of the hospitals the full-time recreation personnel did only recreational work, the music director did recreation work in 4.3 per cent, and in 47.8 per cent the workers did recreation and occupational therapy work. The corrective therapy departments' workers in 17.4 per cent of the hospitals did solely corrective therapy.

The part-time physical education personnel in 21.7 per cent of the hospitals did only physical education work. The part-time recreational workers in 4.3 per cent of the hospitals were concerned only with recreation.

The supervision of physical education was done by the Chief of Occupational Therapy in 39.4 per cent of the hospitals, by the Athletic Director in 17.4 per cent, by the Recreation Committee, Recreation Director, and Male Supervisor of Attendants, each, in themselves, totaling 4.3 per cent of the hospitals.

The recreation work was supervised in 52.2 per cent of the hospitals

the physical education, recreation, and corrective therapy program.

The number of hospitals having full-time persons on duty in their physical education departments totaled 32.1 per cent. The recreation departments of 32.2 per cent of the hospitals had full-time personnel, and 17.4 per cent of the hospitals had full-time employees on duty in corrective therapy.

In 4.3 per cent of the hospitals there was a year round part-time worker in the recreation department. There were 17.4 per cent of the hospitals which have employed part-time summer employees in physical education.

Of the 34.1 per cent of the hospitals having full-time physical education employees, 34.8 per cent had them doing nothing else but physical education, and in 4.3 per cent they did part-time physical education and occupational therapy. In 47.8 per cent of the hospitals the full-time recreation personnel did only recreational work, the music director did recreation work in 4.3 per cent, and in 47.8 per cent the workers did recreation and occupational therapy work. The corrective therapy departments' workers in 17.4 per cent of the hospitals did solely corrective therapy.

The part-time physical education personnel in 31.7 per cent of the hospitals did only physical education work. The part-time recreational workers in 4.3 per cent of the hospitals were concerned only with recreation.

The supervision of physical education was done by the Chief of Occupational Therapy in 26.4 per cent of the hospitals, by the Athletic Director in 17.4 per cent, by the Recreation Committee, Recreation Director, and Music Supervisor of Attendants, each, in themselves, totaling 4.3 per cent of the hospitals.

The recreation work was supervised in 52.2 per cent of the hospitals

by the Chief of Occupational Therapy, by the Chief of Special Services in 17.4 per cent of the hospitals, by the Recreation Director in 8.7 per cent, by the Recreation Committee, Music Director, hospital employees, Superintendent, and the Medical Staff in 4.3 per cent, respectively.

The physical education personnel in 43.5 per cent of the hospitals attended staff meetings and clinics. In 56.5 per cent of the hospitals the recreation department personnel attended these meetings and 17.4 per cent of the hospitals had the corrective therapy employees sit in the meetings.

Patients' case histories were available to physical education personnel in 43.5 per cent of the hospitals, to assist the employee in working with the patient. The recreation personnel in 56.5 per cent of the hospitals were allowed this same privilege, and also the corrective therapy employees in 17.4 per cent of the hospitals.

Of the twenty-three hospitals 17.4 per cent had volunteers assist in the physical education program, 87 per cent in recreation, and 8.7 per cent in the corrective therapy programs.

The future plans for physical education included a Physical Director in 43.5 per cent of the hospitals. The plans for recreation included a Recreation Director in 39.1 per cent, and additional personnel in 26.1 per cent of the hospitals. It is surprising to note that only 13 per cent of the hospitals had future plans concerning corrective therapy personnel.

Table XXV shows the number of patients who were eligible to take part, and those who actually participated in each of the three programs.

TABLE XXV

Number and Total Percentage of Eligible Patients who are Participants

Item	Physical Education		Recreation		Corrective Therapy	
	No. of Patients	Per Cent	No. of Patients	Per Cent	No. of Patients	Per Cent
Patients Eligible to Participate	18637	45.7	31224	77	464	1
Patients who do Participate	6601	35.4	27054	87	188	41

Total Hospital Averages - 40748

The hospitals average a total population of 40,748 patients. The total number of patients eligible to take part in physical education numbered 18,637 or 45.7 per cent. There were 31,224, or 77 per cent, of the patients eligible to participate in the recreation programs. 464, or 1 per cent, were considered eligible to take part in corrective therapy programs. The number of patients participating in physical education was 6,601, or 35.4 per cent, in recreation 27,054, or 87 per cent, and in corrective therapy 188 or 41 per cent.

Table XXVI indicates the method used for clearing a patient before taking part in any one of the three programs.

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TABLE XXV

Number and Total Percentage of Eligible Patients who are Participants

Item	Physical Education		Recreation		Corrective Therapy	
	No. of Patients	Per Cent	No. of Patients	Per Cent	No. of Patients	Per Cent
Patients Eligible to Participate	18527	45.7	31284	77	494	1
Patients who do Participate	6801	33.4	27034	87	188	41

Total Hospital Average - 40748

The hospitals average a total population of 40,748 patients. The total number of patients eligible to take part in physical education numbered 18,527 or 45.7 per cent. There were 31,284, or 77 per cent, of the patients eligible to participate in the recreation programs. 494, or 1 per cent, were considered eligible to take part in corrective therapy programs. The number of patients participating in physical education was 6,801, or 33.4 per cent, in recreation 27,034, or 87 per cent, and in corrective therapy 188 or 41 per cent.

Table XXVI indicates the method used for clearing a patient before taking part in any one of the three programs.

TABLE XXVI

The Methods Used for Clearing Patients for Eligibility to Take Part in Physical Education, Recreation, and Corrective Therapy in the Twenty-three Hospitals

Item	Physical Education		Recreation		Corrective Therapy	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Special Forms	7	30.4	7	30.4	4	17.4
Blanket Coverage	1	4.3	1	4.3		
Ward Book	1	4.3	1	4.3		
Oral	14	60.9	14	60.9		

The clearance of patients was not a set procedure in all the hospitals. There were 60.9 per cent which employed means of clearing patients before taking part in physical education or recreation. Special forms were used by 30.4 per cent of the hospitals before a patient could become active in any one of the three programs. In 4.3 per cent of the hospitals there was a blanket coverage for activity in physical education and recreation, and 4.3 per cent of the hospitals used the Ward Book for clearing patients for these activities.

TABLE XXVI

The Methods Used for Clearing Patients for Eligibility to Take Part in Physical Education, Recreation, and Corrective Therapy in the Twenty-three Hospitals

Item	Physical Education		Recreation		Corrective Therapy	
	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent	No. of Hospitals	Per Cent
Special Forms	7	30.4	7	30.4	4	17.4
Blanket Coverage	1	4.3	1	4.3		
Ward Book	1	4.3	1	4.3		
Total	14	60.9	14	60.9		

The clearance of patients was not a set procedure in all the hospitals. There were 60.9 per cent which employed means of clearing patients before taking part in physical education or recreation. Special forms were used by 30.4 per cent of the hospitals before a patient could become active in any one of the three programs. In 4.3 per cent of the hospitals there was a blanket coverage for activity in physical education and recreation, and 4.3 per cent of the hospitals used the Ward Book for clearing patients for these activities.

CHAPTER IV

SUMMARY AND CONCLUSIONS

This study has been undertaken to ascertain the status of physical education and recreation programs and facilities of the twenty-three selected neuropsychiatric hospitals in New England.

The following summarizes the information gathered in this study:

1. In spite of the fact that all hospital superintendents and managers expressed their belief in physical education, recreation and corrective therapy as therapeutic agents, only 56.5 per cent of the hospitals had physical education personnel. There were 17.4 per cent which had corrective therapy personnel. All hospitals had recreation personnel and an organized recreation program. In all cases where there were personnel for physical education there was a definite organized program of physical education. In addition, where there was personnel for corrective therapy there was a definite organized program of corrective therapy. In no case was there an organized program of either physical education or corrective therapy where there was no personnel employed in those areas.

2. It was found that the following were the most frequently used activities in the thirteen hospitals having an organized physical education program. The figure in parenthesis after each activity indicates the percentage of the thirteen hospitals in which the activity was found to be a part of the program.

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1. In spite of the fact that all hospital superintendents and managers expressed their belief in physical education, recreation and corrective therapy as therapeutic agents, only 56.5 per cent of the hospitals had physical education personnel. There were 17.4 per cent which had corrective therapy personnel. All hospitals had recreation personnel and an organized recreation program. In all cases where there were personnel for physical education there was a definite organized program of physical education. In addition, where there was personnel for corrective therapy there was a definite organized program of corrective therapy. In no case was there an organized program of either physical education or corrective therapy where there was no personnel employed in those areas.

2. It was found that the following were the most frequently used activities in the thirteen hospitals having an organized physical education program. The figure in parenthesis after each activity indicates the percentage of the thirteen hospitals in which the activity was found to be a part of the program.

a. Field days (100 per cent)
b. Hiking (84.3 per cent)
c. Basketball (69.2 per cent)
d. Softball (61.5 per cent)
e. Volleyball (61.5 per cent)
f. Bowling (61.5 per cent)
g. Tennis (61.5 per cent)
h. Low organization games (61.5 per cent)
i. Croquet (53.8 per cent)
j. Table tennis (53.8 per cent)
k. Shuffle board (53.8 per cent)
l. Pocket billiards (53.8 per cent)

Other activities included in the programs of these thirteen hospitals to a lesser extent were: badminton, tag football, goal hi, gymnasium games, relays, formal exercises, picnics, cage ball, billiards, horseshoes, ward games, paddle tennis, skiing, football, tether ball, swimming, roller skating, tobagganing, kite flying, and coasting.

Organized recreation programs were found in all of the twenty-three hospitals observed. The following activities and the percentage of the twenty-three hospitals in which they were found indicate the content of those programs. These activities were:

a. Movies (100 per cent)
b. Dances (100 per cent)
c. Holiday programs (100 per cent)
d. Carnivals (100 per cent)
e. Parties (100 per cent)
f. Ward games (100 per cent)
g. Amateur shows (95.7 per cent)
h. Picnics (91.3 per cent)
i. Music appreciation (65.2 per cent)
j. Trips (65.2 per cent)
k. Quiz contests (30.4 per cent)
l. Live radio shows (21.7 per cent)
m. United Service Organization shows (17.4 per cent)
n. Chess contests (4.3 per cent)

Activities in the corrective therapy program are for the most part

individually prescribed and do not, therefore, lend themselves to tabulation. Two of the four hospitals having organized corrective therapy programs include trips while but one includes games and contests in the program.

3. Hospital papers, bulletin boards, radio programs, recreation rooms, and privileges are used for motivation of the programs in the various hospitals. Volunteers from outside the hospitals were used for officiating at games, entertaining at parties, assisting wheel chair patients, and officiating at contests. A large percentage of the institutions have patient managers in the various programs. In almost all of the cases, allowance is made for individual differences among the patients.

4. All hospitals visited had outdoor facilities for use in physical education, ranging from improvised softball diamonds in 39.1 per cent of the hospitals, to a nine hole golf course, in 4.3 per cent of the hospitals. The facilities were used either in formal instruction or for purely spontaneous use in those instances where there was nc instruction. The recreational facilities consisted of picnic areas in 60.8 per cent of the hospitals, band stands in 8.7 per cent, and a mechanical merry-go-round in 4.3 per cent of the hospitals. The corrective therapy facilities were the same as those of the physical education departments in 17.4 per cent of the hospitals.

5. In only 4.3 per cent of the hospitals was there a "hospital owned" recreational facility off the station. In 17.4 per cent of the cases the physical education and recreation departments took advantage of off-station facilities.

6. The indoor facilities for physical education in the twenty-three hospitals were found to be not extensive as the data below indicates. The figure in parenthesis after each of the facilities listed refers to the

percentage of the twenty-three hospitals which had the particular facility.

a.	Gymnasium	(13 per cent)
b.	Improvised gymnasium	(13 per cent)
c.	Swimming pool	(8.7 per cent)
d.	Recreation center	(4.3 per cent)
e.	Chapel	(4.3 per cent)
f.	Recreation hall	(4.3 per cent)

The indoor recreational facilities found at the twenty-three hospitals are listed below. The figure in parenthesis following the named facility pertains to the percentage of the twenty-three hospitals which had the facility.

a.	Recreation rooms	(47.8 per cent)
b.	Central broadcasting system	(47.8 per cent)
c.	Bowling alleys	(43.5 per cent)
d.	Chapel	(34.5 per cent)
e.	Recreation hall	(21.7 per cent)
f.	Auditorium	(13 per cent)
g.	Recreation center	(4.3 per cent)
h.	Amusement hall	(4.3 per cent)
i.	Pavilion	(4.3 per cent)
j.	Movie theater	(4.3 per cent)
k.	Club house	(4.3 per cent)

All of the corrective therapy departments had corrective rooms, and one of the hospitals having no corrective therapy program used a gymnasium, previously listed under the section dealing with physical education facilities.

7. The equipment and supplies available for physical education are very limited in 13 per cent, limited in 69.6 per cent, and adequate in 17.4 per cent of the hospitals. Those for recreation were limited in 47.8 per cent and adequate in 52.2 per cent of the institutions. The corrective therapy equipment and supplies were adequate in all of those hospitals having organized corrective therapy programs.

8. Of the 40,748 patients in the hospitals, 18,637, or 45.7 per cent

percentage of the twenty-three hospitals which had the particular facility.

a. Gymnasium	(13 per cent)
b. Improvised gymnasium	(13 per cent)
c. Swimming pool	(8.7 per cent)
d. Recreation center	(4.3 per cent)
e. Chapel	(4.3 per cent)
f. Recreation hall	(4.3 per cent)

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f. Auditorium	(13 per cent)
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h. Amusement hall	(4.3 per cent)
i. Pavilion	(4.3 per cent)
j. Movie Theater	(4.3 per cent)
k. Club house	(4.3 per cent)

All of the corrective therapy departments had corrective rooms, and one of the hospitals having no corrective therapy program used a gymnasium, previously listed under the section dealing with physical education facilities.

7. The equipment and supplies available for physical education are very limited in 13 per cent, limited in 65.6 per cent, and adequate in 17.4 per cent of the hospitals. Those for recreation were limited in 47.8 per cent and adequate in 52.2 per cent of the institutions. The corrective therapy equipment and supplies were adequate in all of those hospitals having organized corrective therapy programs.

8. Of the 40,748 patients in the hospitals, 18,637, or 45.7 per cent

were eligible to participate in physical education. 31,224 or 77 per cent were eligible to participate in recreation. There were 464 or 1 per cent eligible to participate in corrective therapy. Of the number eligible to participate in the physical education program, 35.4 per cent were active participants. 87 per cent of those eligible to participate in recreation actually took part. The patients active in the corrective therapy program represented 41 per cent of those eligible to take part in this program.

The conclusions that may be drawn from the findings of this study are:

1. It may be inferred, therefore, that factors other than an expressed belief on the part of managers and superintendents in the therapeutic value of physical education, recreation, and corrective therapy affect the inclusion of the specialized personnel necessary for these programs on the various hospital staffs. Further, it may be concluded that without specialized personnel there has been no organized program in these areas.

2. Physical Education, Recreation, and Corrective Therapy can be a valuable adjunct to the normal program of neuropsychiatric hospitals as evidenced by: (a) The expressed belief by administrators of the twenty-three hospitals studied in the values of such programs. (b) The fact that all twenty-three hospitals had recreation programs and over half that number had physical education programs. (c) Research being carried on by two of the hospitals to determine content and scope of physical education programs.

Although there are no established standards for physical education, recreation, and corrective therapy, programs in neuropsychiatric hospitals, the conclusion can be drawn that, since only a minority of the hospitals include all three programs in their present treatment of patients in face of the unanimous recognition of the benefits to be derived, present programs

of this type are not entirely adequate.

RECOMMENDATIONS FOR FURTHER STUDY

1. To determine if the rate of discharges are greater in the hospitals having an organized program in physical education and recreation, or in those that do not sponsor these programs.

2. To determine the number of patients who are aided by physical education and recreation activities and those patients who may not be benefited by these activities.

3. To find out what effects the various activities in physical education and recreation have on the patients with different mental diseases.

4. To ascertain whether there is any carry over value of the activities sponsored by the hospitals to civilian life after discharge from the hospital.

5. To find out if there is any connection between the number of former patients returning to the hospital and whether they did,or did not, learn and take part in physical education or recreation activities while at the hospital the first time.

6. To establish standards for physical education, recreation, and corrective therapy programs and facilities for neuropsychiatric hospitals.

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